Attachment 5

Traffic Volume Forecasts for Proposed Development

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1. Methodology

Traffic volume forecasts for this project were developed with the use of the regional travel demand model developed for the Southern Corridor Mobility Study performed by The Sear-Brown Group, Inc. using TModel2 software. This model was based upon the 1994 regional travel demand model. This model was developed and is maintained by the Genesee Transportation Council (GTC). The documentation report, The 1994 Update of the Rochester Area Traffic Simulation Model, along with the Southern Corridor Mobility Study, were referenced.

Travel demand modeling consists of several components. Residential and commercial land use data are developed for each transportation analysis zone (TAZs). TAZs divide the area into units of land for purposes of generating trip origins and destinations. A travel network was developed in the model that contains attributes on all of the links (roadway sections) and nodes (roadway intersections) such as speeds, capacity, number of lanes, presence of left turn lanes, and turn prohibitions. A "gravity model" was run which connects the trip origins and destinations to form trips within and between TAZs. The model then runs an assignment module that assigns the trips to the roadway network.

Future (2020) land use changes (development) were input into the model to reflect the proposed development. Field counts were used for the Power Plant, Pure Waters Operations Center (ROC), and Children's Detention Center (CDC) generated trips. All other trips were projected based on the sixth edition Trip Generation (Institute of Transportation Engineers (ITE), Washington, D.C., 1997). The model transportation network (road system) was modified to reflect any capital improvements being made (roadway widening, or addition of turn lanes, for example). These changes included the modification of the Southern Corridor Mobility Study Tmodel to reflect the preferred alternative (Alternative 7).

The following development scenarios were analyzed during both the AM and PM peak periods to show the varying degree of impact to the transportation system:

1. Iola Fully Occupied by Monroe County
   - This scenario was analyzed with the Southern Corridor Mobility Study. It shows the trips existing with the Iola Campus fully occupied by Monroe County, as was the case at the time of the Southern Corridor Mobility Study, April 1999.

2. Draft Concept Plan 'A': Match MC Iola
   - This scenario was developed to show what development could be present while retaining the total number of trips generated shown in the Southern Corridor Mobility Study (Iola Fully Occupied by Monroe County scenario). See Table 1 for a description of the developments and their respective sizes. The CDC, ROC, and Iola Building #1 were retained in this scenario.

3. Draft Concept Plan 'B': Maximum Build-out with CDC Retained
   - This scenario shows trips developed by using the maximum possible size of medical office space while retaining the CDC, ROC, and Iola Building #1.

4. Draft Concept Plan 'C': Maximum Build-out
   - This scenario shows the trips generated using the maximum possible size of medical office space while retaining the ROC and Iola Building #1 only. The CDC would be removed in favor of medical office space under this scenario.

Table 1: Redevelopment Scenario Trip Generation

LAND USE	Iola Fully Occupied by Monroe County (Pre 1999)	Concept A Match MC Iola	Concept B Maximum Build-Out with the CDC	Concept C Maximum Build-Out without the CDC
ROC/Power Plant	Existing Trips (56 am, 24 pm)	Existing Trips (56 am, 24 pm)	Existing Trips (56 am, 24 pm)	Existing Trips (56 am, 24 pm)
CDC – Child Detention Center	Existing Trips (27 am, 17 pm)	Existing Trips (27 am, 17 pm)	Existing Trips (27 am, 17 pm)	O s.f.
Iola Building #1	17,115 s.f.	17,115 s.f.	17,115 s.f.	17,115 s.f.
Specialty Retail	N/A	38,000 s.f.	38,000 s.f.	38,000 s.f.
Medical Office	N/A	199,000 s.f.	264,000 s.f.	320,000 s.f.
TRIPS				
AM	**652**	**652**	**789**	**880**
PM	**780**	**780**	**952**	**1011**

Throughout all of these alternatives, the traffic impacts (addition of traffic) occur on East Henrietta Road between I-390 northbound (NB) ramps and the Iola Campus and on Westfall Road for the most part, with the highest impacts at the existing driveway intersections. No intersection is impacted by more than 100 trips for any development scenario with the exception of Concept Plan 'C'. Under this scenario, the intersections of Westfall Road and the Site Drive, East Henrietta Road and the Site Drive, and I-390 NB Ramps and East Henrietta Road will be impacted by less than 200 trips during the PM peak period. Overall impacts for this scenario are generally less than 100 vehicles during both peak periods.